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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,714	01/05/2001	David T. Berquist	55350US6B014	5169

32692 7590 07/15/2003

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EXAMINER

BANGACHON, WILLIAM L

ART UNIT	PAPER NUMBER
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2635

DATE MAILED: 07/15/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

GAH

Office Action Summary

Application No.

09/755,714

Applicant(s)

BERQUIST ET AL.

Examiner

William Bangachon

Art Unit

2635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2-8
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed **“processor”** in claims 1, 17, 20-24, 28, 30-31 and the **“display showing an interrogation area”** in claim 17, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure (page 3, line 4, page 9, line 3) is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

The **“RFID interrogation source”** in claims 1, 17, 20, 22-24, 28, and 30-31, lacks antecedent basis in the specification.

Claim 17 recites **“an interrogation area is shown on the display”** (page 13, lines 11-12). A “representation of an interrogation area” is disclosed but not “an interrogation area is shown on the display”. Further, claim 17 suggests that the RFID reader knows of its location in order for an interrogation area to be displayed. And claims 18-19 and 30 suggest that the RFID reader can determine the distance between the RFID reader and an item of interest. There is no indication in the specification on how the RFID reader determines its own location or how the RFID reader determines the distance between the RFID reader and an item of interest, in order for an interrogation area to be displayed. Otherwise, the displayed interrogation area is not meaningful. Furthermore, it is unclear how a portable RFID reader, which is battery powered, can have a long interrogation range, as the claims suggest.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

5. Claims 1, 17, 20, 22-24, 28, and 30-31, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The RFID interrogation source, antenna, processor, and display of claims 1, 17, 20, 22-24, 28, and 30-31 lacks structural relationship/cooperation with the other

elements in the claims. It is therefore unclear and confusing how these elements form a portable RFID reader for use in interrogating RFID tags. Further, it is unclear what user interface the claims are referring to. Typical user interface are keypads or keyboards, touch screen, wherein the interface allows the user to interact with the system. However, in this case, the user interface as claimed, seems to be unrelated to the description that follows.

6. Claims 34-38 provides for the use of an RFID reader for interrogating RFID tags, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 34-38 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2635

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 1-6, 28-30, 34-38 rejected under 35 U.S.C. 102(b) as being anticipated by US 5,640,002 (Ruppert et al).

In claims 1, 2, 28-29, and 30, Ruppert et al teach of a portable RFID reader (314) for use in interrogating RFID tags (figure 20) associated with items of interest, comprising:

- (a) an RFID interrogation source {col. 22, lines 59-65; col. 23, lines 6-10; col. 44, lines 63-67};
- (b) an antenna (304, 307, 440) {col. 23, lines 10};
- (c) a processor (320);
- (d) a display (figures 1 and 13; figures 16 and 19: 308, 328); and

(e) a user interface (328, 308A, 308B) in which at least one graphic associated with the item of interest (such as a grocery list) may be presented on the display for observation by a user as shown in figures 1 and 13 {col. 30, lines 4-32; col. 32, lines 9-20; col. 39, lines 29-40}.

In claim 3, the graphic is representative of an area interrogated by the RFID reader {col. 39, lines 50-56, lines 50-57}.

In claim 4, the processor and display are components of a hand-held computer (320) {col. 17, lines 29-36}.

In claim 5, the display may be activated by touch {paragraph bridging cols. 17 and 18}.

In claim 6, the user interface further includes text associated with the item of interest may be presented on the display for observation by a user as shown in figures 1 and 13 {col. 30, lines 4-32}.

Claims 34-38 recites a method of programming the apparatus of claim 1 and therefore rejected for the same reasons.

12. Claims 7-17, 24-25, and 28-30, are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,640,002 (Ruppert et al).

In claim 7, Rupert et al does not disclose expressly **“at least one audio signal for providing information to the user related to an interrogated RFID tag”**. Rupert et al teach of mixed shopping for products with both barcodes and RFID tags. When a shopper picks a product off the shelf, the product ID is input in the system either by scanning or interrogation {col. 32, lines 9-20}. If there is a good reading on the scanned product, a audible indication is performed {col. 27, lines 60-64}. Obviously, a visible or audible indication is also performed on an interrogated RFID tag because whether a product is scanned or interrogated, the ID of the product is the input to the system, to one of ordinary skill in the art.

In claim 8, “the audio signal is provided each time an RFID tag is interrogated” whether it is a bad read or a good read {col. 27, lines 60-64}.

In claim 9, the portable RFID reader of claim 7, wherein the audio signal is only provided when the RFID tag of an item meeting a predetermined criterion is interrogated {col. 27, lines 60-64}. In this case, a successful decoding operation was performed.

In claims 10 and 28-30, the portable RFID reader of claim 9, wherein the predetermined criterion is selected from a group consisting of

- (a) a specific RFID tag associated with an item of interest {col. 22, lines 59-65};
- (b) an RFID tag that is out of order relative to the RFID tag of at least one adjacent item; and
- (c) a class of items to which the item of interest belongs.

In claim 11, the portable RFID reader of claim 10, wherein the criterion in response to which the audio signal is provided may be presented on the display for observation by a user {col. 32, lines 17-20}.

In claim 12, although Rupert et al does not disclose expressly "at least one light for providing information to the user", Rupert et al teach that if there is a good reading on the scanned product, a visible indication is performed {col. 27, lines 60-64}. A light, such as a led, would obviously be a visible indicator, to one of ordinary skill in the art.

In claim 13, clearly, there has to be at least one light that is illuminated each time an RFID tag is interrogated, as a visible indicator {col. 27, lines 60-64}.

In claim 14, the portable RFID reader of claim 12, wherein the light is only illuminated when the RFID tag of an item meeting a predetermined criterion is interrogated {col. 27, lines 60-64}. In this case, a successful decoding operation was performed.

In claims 15 and 28-30, the portable RFID reader of claim 14, wherein the predetermined criterion is selected from a group consisting of

- (a) a specific RFID tag associated with an item of interest {col. 22, lines 59-65};
- (b) an RFID tag that is out of order relative to the RFID tag of at least one adjacent item; and
- (c) a class of items to which the item of interest belongs.

In claim 16, the portable RFID reader of claim 15, wherein the criterion in response to which the at least one light is illuminated may be presented on the display for observation by a user {col. 32, lines 17-20}.

Claim 17 recites the combination of claims 1-3 and therefore rejected for the same reasons.

Claim 22 recites the combination of claims 1 and 7-11 and therefore rejected for the same reasons.

Claims 24-25 recites the combination of claims 1 and 13-14 and therefore rejected for the same reasons.

13. Claims 18-21 and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,640,002 (Ruppert et al) in view of US 6,318,636 (Reynolds et al).

In claims 20-21, although Ruppert teach of generating audible indication of a bad read and a good read {Ruppert, col. 27, lines 60-64}, Ruppert does not disclose expressly "a first and second audio signals that differ from each other in at least one of frequency, duration, and number of repetitions". Obviously, the audible indication has to differentiate a bad read from a good read, otherwise, a user of the system of Ruppert cannot tell whether the product scanned was saved.

Reynolds et al teach of a first and second audio signal indicator that differs in the number of repetitions, to indicate a bad read from a good read {Reynolds, figure 5A, col. 35; figure 14, 700; col. 8, lines 1-10} for the purpose of providing an intuitive output {Reynolds, col. 2, lines 48-50}. Clearly, these features are desirable in the system of Ruppert to indicate a bad read from a bad read. The systems of Ruppert and Reynolds are analogous art because they are from same field of endeavor, RFID reader systems. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to have used a first and second audio signal indicator that differs in the number of repetitions, in the system of Ruppert, as taught by Reynolds, because this will distinguish a bad read from a good read.

In claims 26-27, although Ruppert teach of generating visible indication of a bad read and a good read {Ruppert, col. 27, lines 60-64}, Ruppert does not disclose expressly "a plurality of lights indicating different occurrences". Obviously, the visible indication has to differentiate a bad read from a good read, otherwise, a user of the system of Ruppert cannot tell whether the product scanned was saved.

Reynolds et al teach of a first and second audio signal indicator that differs in the number of repetitions, to indicate a bad read from a good read {Reynolds, figure 5A, col. 33; figure 14, 700; col. 7, lines 25-65} for the purpose of providing an intuitive output {Reynolds, col. 2, lines 48-50; col. 9, lines 21-33}. Clearly, these features are desirable in the system of Ruppert to indicate a bad read from a bad read. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to have used a plurality of lights indicating different occurrences, in the system of Ruppert, as taught by Reynolds, because this will distinguish a bad read from a good read.

Claims 18-19 are similar to claims 20-21 and 26-27 except claims 18 and 19 used the display graphics to indicate the location of an item of interest wherein claim 18 uses bars and claim 19 uses icons. Reynolds et al teach of using the display graphics to indicate a bad read from a good read {figures 6 and 7; col. 8, line 63-col. 9, line 20} for the purpose of providing an intuitive output {Reynolds, col. 2, lines 48-50; col. 9, lines 21-33}. Clearly, these features are desirable in the system of Ruppert to indicate a bad read from a bad read. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to have used the display graphics to

indicate the location of an item of interest wherein claim 18 uses bars and claim 19 uses icons, in the system of Ruppert, as taught by Reynolds, because this will distinguish a bad read from a good read.

14. Claims 1-2, 28-30, 34-38 ejected under 35 U.S.C. 102(e) as being anticipated by US 6,318,636 (Reynolds et al).

In claims 1, 2, 28-29, and 30, Reynolds et al teach of a portable RFID reader (10) for use in interrogating RFID tags (12) associated with items of interest, comprising:

(a) an RFID interrogation source {col. 22, lines 59-65; col. 23, lines 6-10; col. 44, lines 63-67};

(b) an antenna (42);

(c) a processor (46);

(d) a display (74); and

(e) a user interface {col. 7, lines 43-67} in which at least one graphic associated with the item of interest may be presented on the display for observation by a user as shown in figures 6 and 7.

(f) an RFID interrogation source as claimed in claims 17, 20, 22-24, 28, and 30-31 {col. 6, lines 57-61}.

Claims 34-38 recites a method of programming the apparatus of claim 1 and therefore rejected for the same reasons.

Examiner Contact Information

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Bangachon whose telephone number is 703-305-2701. The examiner can normally be reached on 4/4/10.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 703-305-4704. The fax phone numbers for the organization where this application or proceeding is assigned is 703-872-9314 for regular and After Final formal communications. The examiner's fax number is 703-746-6071 for informal communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

William L Bangachon
Examiner
Art Unit 2635

July 10, 2003

MICHAEL HORABIK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

